

REMARKS

This Application has been carefully reviewed in light of the Final Office Action mailed September 10, 2003. Claims 1-34 are pending in the present application. The Examiner rejects Claims 1-3, 6-12, 15-21, 24-29, 31, and 33. The Examiner objects to Claims 4-5, 13-14, 22-23, 30, 32, and 34. For the reasons set forth below, Applicant respectfully disagrees with certain of these rejections.

Allowable Subject Matter

Applicant notes with appreciation the Examiner's indication that Claims 4-5, 13-14, 22-23, 30, 32, and 34 would be allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims. However, these claims depend from independent Claims 1, 10, 19, 29, 32, and 33, respectively, which are allowable for the reasons discussed below, and are, therefore, allowable in their current form.

Claim Objections

The Examiner objects to Claims 4, 13, 22, 30, 32, and 34 as having indefinite claim language for failing to define the term R^T . Applicant has amended Claims 4, 13, 22, 32, and 34 to define R^T . Therefore, Applicant respectfully requests that these objections be withdrawn.

Rejections Under §101

The Examiner rejects Claims 1-9 and 29-30 under 35 U.S.C. §101 stating that the claimed invention is directed to non-statutory subject matter, namely the manipulation of data. Applicant has amended Claims 1 and 29 to clarify that the method is implemented on a computer. Therefore, Applicant respectfully requests that these rejections be withdrawn.

Rejections Under §102

The Examiner rejects Claims 29, 31, and 33 under 35 U.S.C. §102(a) as being anticipated by U.S. Patent 6,151,582 issued to Huang, et al. ("*Huang*").

Huang is directed toward a decision support system for managing an agile supply chain. (*Huang*, Abstract). The system allows a decision-maker in the supply chain to view the chain from their own perspective. (*Huang*, Col. 1; Lines 44-46). A structural data representation of the data in various data spaces is used to model the elements of the supply chain that are relatively static. (*Huang*, Col. 6; Lines 48-50). The decision support system database also contains process information for the dynamic elements of the supply chain. (*Huang*, Col. 8; Lines 38-43). The decision support system includes a server side that performs analytical processes on the data to determine requirements and make projections. (*Huang*, Col. 2; Lines 33-36). A client side presents the various available points of view of the supply chain to the user. (*Huang*, Col. 2; Lines 38-40).

Claim 29, as amended, of the present invention recites the following:

A computer-implemented method for allocating data in a hierarchical, multi-dimensional organization of data, comprising:

determining demand forecasts for one or more parents in the organization of data;

determining current demand values for one or more children in the organization of data, each child being hierarchically related to one or more of the parents;

determining the relationship between each parent and its children, the parents and children each representing a storage location within the organization of data that is uniquely identified by the positions of members in two or more dimensions of the organization of data;

determining a variation for each child, the variation calculated using statistical techniques based on the historical variation in the values of the child over a specified time period; and

determining a new demand value for each child by allocating the demand forecasts for the parents to the children based on the parent-child relationships, the current demand values of the children, and the variations of the children.

Claims 31 and 33 recite similar, although not identical, limitations.

Independent Claims 29, 31, and 33 are Allowable over *Huang*

In order for a patent claim to be anticipated by prior art under §102, each and every element of that claim must be present in the cited art. For the reasons discussed below, *Huang* fails to disclose each and every element of Claims 29, 31, and 33.

The Examiner cites the following excerpts of *Huang* as disclosing the elements of Claims 29, 31, and 33 of the present application:

- "determining demand forecasts for one or more parents in the organization of data" (cited by Examiner as being disclosed by *Huang* at Col. 19, Lines 45-55; Col. 21, Lines 50-55).

Huang discloses a forecast demand for each product group (*Huang*, Col. 19; Line 48-49) or a product level (*Huang*, Col. 21; Line 50-55). Therefore, based on the Examiner's view of *Huang*, the "parent" equates to product group or product level.

- "determining current demand values for one or more children in the organization of data, each child being hierarchically related to one or more of the parents" (cited by Examiner as being disclosed by *Huang* at Col. 8, Lines 1-5; Col. 16, Lines 60-65).

Huang discloses a "demand data space" for a product or product group (*Huang*, Col. 8; Line 1-5), but not determining current demand values. Furthermore, *Huang* discloses using historical data to estimate consolidation requirements for repairs. (*Huang*, Col. 16, Lines 60-65). In this excerpt of *Huang*, not only is there no indication of a parent or a child, there is only a reference to "estimating" requirements and no disclosure of determining current demand values.

In addition, as discussed above with respect to the first limitation, the Examiner has already indicated that *Huang*'s product group is equivalent to the "parent" in Claim 29 (and similarly, although not identically, in Claims 31 and 33). Assuming, for the sake of argument, that "demand data space" does disclose "determining current demand values," *Huang* determines those demand values for the parents (i.e., product groups), rather than children. Consequently, the *Huang*

excerpt cited by the Examiner to support this limitation cannot logically be used in combination with the previous limitation. Therefore, the excerpts of *Huang* relied upon by the Examiner fail to disclose "determining current demand values for one or more children in the organization of data, each child being hierarchically related to one or more of the parents," as recited by Claim 29, and similarly, although not identically, by Claims 31 and 33.

- "determining a variation for each child, the variation calculated using statistical techniques based on the historical variation in the values of the child over a specified time period"

(cited by Examiner as being disclosed by *Huang* at Col. 42; Line 65 to Col. 43; Line 5).

The excerpt cited by the Examiner merely discloses the mathematical formula for determining the volatility of demand for a random variable. The excerpt does not disclose that the variation is determined for each child or that the variation is calculated using statistical techniques based on the historical variation in the values of the child over a specified time period, as recited in Claim 29, and similarly, although not identically, in Claims 31 and 33.

- "determining a new demand value for each child by allocating the demand forecasts for the parents to the children based on the parent-child relationships, the current demand values of the children, and the variations of the children"

(cited by Examiner as being disclosed by *Huang* at Col. 21, Lines 45-60; Col. 26, Lines 25-35; Col. 40, Lines 25-50; and Col. 44, Table 9).

The Examiner has merely pointed to various excerpts of *Huang* alleged to disclose each component of the present limitation. However, the excerpts of *Huang* cited by the Examiner fail to disclose that a new demand value for each child is determined by allocating demand forecasts for the parents to the children based on the parent-child relationships, *the current demand values of the children, and the variations of the children*, as recited in Claim 29, and similarly, although not identically, in Claims 31 and 33. Nowhere does *Huang* disclose an allocation of a

value from a parent to its children based on current demand values of children and the variation of the children.

For each element of Claim 29, and similarly, although not identically Claims 31 and 33, the Examiner relies on excerpts of *Huang* which either lead to inconsistent use of "parent" and "children" when applied to each element of the present claims and/or fail to disclose all the elements of the present claims. Particularly, as discussed above, *Huang* fails to disclose at least: (1) an allocation based on current demand values of the children and the variation of the children; or (2) that the variation for each child is calculated using statistical techniques based on historical variations, both of which are recited in Claim 29, and similarly, although not identically, in Claims 31 and 33.

Therefore, *Huang* fails to anticipate Claims 29, 31, and 33 of the present invention. For at least these reasons, Applicant believes that Claims 29, 31, and 33 are allowable over the cited reference. Therefore, Applicant respectfully requests reconsideration and allowance of Claims 29, 31, and 33, and all claims that depend from those claims.

Rejections Under §103

The Examiner rejects Claims 1-28 under 35 U.S.C. §103(a) as being unpatentably over *Huang* in view of U.S. Patent 5,758,006 issued to Loble, et al. ("*Loble*"). For the reasons set forth below, Applicant respectfully disagrees with these rejections.

In order to establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference, or the combination of references, must teach or suggest all of the claim limitations. See M.P.E.P. §2143. A *prima facie* case of obviousness cannot be maintained here because neither *Huang* nor *Loble*, whether considered alone or in combination, teach or suggest all of the elements of Claims 1-34.

Independent Claims 1, 10, 19 and 28 are Allowable Over Huang In View of Loble

The Examiner cites various excerpts of *Huang* and *Loble* as disclosing the elements of Claims 1, 10, 19, and 28. However, as discussed below, several elements of Claim 1 (and similarly, although not identically, of Claims 10, 19, and 28) are not disclosed by either *Huang* or *Loble*.

- "determining current values for one or more children in the organization of data, each child being hierarchically related to one or more of the parents"

The Examiner does not point out any disclosure of this element in either *Huang* or *Loble*.

- "determining a new value for each child by allocating the new values of the parents to the children based on the parent-child relationships, the current values of the children, and the variations of the children"

(cited by Examiner as being disclosed by *Huang* at Col. 21, Lines 45-60; Col. 26, Lines 25-35; Col. 40, Lines 25-50; and Col. 44, Table 9).

The Examiner has merely pointed to various excerpts of *Huang* alleged to disclose each component of the present limitation. However, the excerpts of *Huang* cited by the Examiner fail to disclose that a new value for each child is determined by allocating the new values of the parents to the children based on the parent-child relationships, *the current values of the children, and the variations of the children*, as recited in Claim 1, and similarly, although not identically, in Claims 10, 19, and 28. Nowhere does *Huang* disclose an allocation of a value from a parent to its children based on current values of children and the variation of the children.

For each element of Claim 1, and similarly, although not identically, Claims 10, 19, and 28, the Examiner relies on excerpts of *Huang* which fail to disclose all the elements of the present claims. Particularly, as discussed above, *Huang* fails to disclose at least an allocation based on current values of the children and the variation of the children, as recited in Claim 1, and similarly, although not identically, in Claims 10, 19, and 28.

Therefore, *Huang* fails to anticipate Claims 1, 10, 19, and 28 of the present invention. For at least these reasons, Applicant believes that Claims 1, 10, 19, and 28 are allowable over the cited reference. Therefore, Applicant respectfully requests reconsideration and allowance of Claims 1, 10, 19, and 28, as well as all claims that depend from those claims.

Claims 2-3, 6-9, 11-12, 15-18, 20-21, 24-27 are Allowable Over *Huang* In View of *Lobley*

Claims 2-3 and 6-9 depend from Claim 1 and incorporate all of the limitations of Claim 1. Claims 11-12 and 15-18 depend from Claim 10 and incorporate all of the limitations of claim 10. Claims 20-21 and 24-27 depend from claim 19 and incorporate all of the limitations of Claim 19. As discussed above, *Huang* and *Lobley*, whether considered alone or in combination, fail to disclose the elements of Claims 1, 10, and 19 and are, therefore, allowable claims. Consequently, Claims 2-3, 6-9, 11-12, 15-18, 20-21, 24-27, which depend upon Claims 1, 10, and 19, are also allowable.

CONCLUSION


Applicant has made an earnest attempt to place this application in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicant respectfully requests reconsideration and full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this application in any manner, the Examiner is invited to contact Brian W. Oaks, Attorney for Applicant, at the Examiner's convenience at (214) 953-6986.

Although Applicant believes that no fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayment to Deposit Account No. 02-0384 of Baker Botts, L.L.P.

Respectfully submitted,

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